

YUTAJEA, ANOTHER NEW GENUS OF RUBIACEAE FROM THE GUAYANA HIGHLAND

Of the genera of Rubiaceae endemic to the region of the Guayana Highland, none had previously been described from the Serranía de Yutaje in the Territorio Federal Amazonas of Venezuela. A recent expedition to this region collected material of a rubiaceous tree, here described as a new genus. It is fitting to name the genus for Yutaje, a sandstone mountainous area where numerous endemic species are already known.

Yutajea Steyermark, gen. nov. TYPE: *Y. liesneri* Steyermark. Tribe Isertieae.

Arbor. Stipulae interpetiolares persistentes late lanceolatae acutae. Inflorescentia thyriformi-paniculata seriebus verticillatis dispositis, axibus in dichasia desinentibus. Calyx truncatus tandem in lobes 3–4 irregulariter rumpens. Corolla late cylindrica vel subinfundibuliformis rosea, lobis 6 in aestivatione imbricatis paullo inaequalibus, tubo intus dense pubescenti, orificio barbato. Stamina 6 prope basim tubi corollae affixae. Antherae sub-basifixae transverse rugulosae inclusae. Ovarium 6-loculare, ovulis numerosis.

Yutajea liesneri Steyermark, sp. nov. TYPE: Venezuela. Territorio Federal Amazonas: Depto. Atures, 5–8 km NW of Yutaje settlement, along stream flowing south from east side of unnamed peak, 3 km west of Río Coro Coro, west of Serranía de Yutaje, 05°40'N, 66°9'W, 700–1,000 m, 10 Mar. 1987, *Ronald Liesner & Bruce Holst 21826* (holotype, MO; isotype, VEN).

Arbor 6-metralis, ramulis superioribus adpresso-pubescentibus; stipulis late lanceolatis acutis 8 mm longis 4 mm latis; foliis oblanceolatis vel lanceolato-ellipticis apice acuminatis basi acutis 13.5–20 cm longis 5.5–8.5 cm latis; inflorescentia thyriformi-paniculata late ovoidea multiflora pedunculato, axibus principalibus 12–16 modice vel dense hirtellis in verticillos 3–5 ordinatos atque in dichasia composita desinentibus; calyce hypanthioque 4–6 mm longo subadpresso-pubescenti; calyce ante anthesin truncato vel paullo undulato sub anthesi in lobos 3–4 irregulariter rumpenti, lobis suborbicularibus vel suborbiculari-ovatis apice rotundatis, marginibus minute ciliolatis; corolla rosea late cylindrica vel subinfundibuliformi 8–9 mm longa 4–7 mm lata, tubo extus glabro intus praeter partem basilem 1.5 mm glabrum adpresso-pubescenti atque prope orificium barbato pilis longioribus instructo; lobis 6 paullo inaequalibus suborbiculari-ovatis vel obovato-oblongis apice obtusis vel rotundatis ubique glabris marginibus minute papillatis; staminibus 6, antheris linearibus.

ANN. MISSOURI BOT. GARD. 74: 676–678. 1987.

Tree 6 m tall, the twigs appressed-pubescent distally. Stipules broadly lanceolate, acute, 8 mm long, 4 mm wide, strigose. Leaves oblanceolate to lance-elliptic, acuminate at apex, acute at base, 13.5–20 cm long, 5.5–8.5 cm wide, the upper surface glabrous, the lower surface pilosulous on midrib and lateral nerves, sparsely pubescent on some tertiary veins, glabrous on surface between the tertiary veins; lateral nerves 12–17 each side, anastomosing near margin, elevated below; midrib sulcate above and elevated below; tertiary veinlets inconspicuous above, finely reticulate and impressed below. Inflorescence thyriform-paniculate, broadly ovoid, 35–50-flowered, 6–11 cm long excluding the peduncle, 4.5–7 cm wide, the main axes 12–16 in 3–5 verticils ending in often compound dichasia, moderately to densely hirtellous; lowest axes 12–25 mm long, the others 7–15 mm long. Bracts subtending axes ovate, acute, 2.5–4 mm long, 1.5 mm wide, minutely hirtellous. Peduncle terminal, 8–12 cm long, 2.5–3 mm diam., moderately pubescent. Calyx and hypanthium 4–6 mm long, subappressed-pubescent; hypanthium obconic, 3–5 × 3–5 mm. Calyx truncate or slightly undulate before anthesis, splitting irregularly during anthesis into 3–4 thickened, suborbicular or suborbicular-ovate lobes, these rounded at apex, 3–3.5 mm long, 4–8 mm wide, minutely ciliolate at the margins. Corolla pink or roseate, fleshy-thickened, broadly cylindrical or subinfundibuliform, 8–9 mm long, 4–7 mm wide, the tube 5 mm long, 4–7 mm wide, glabrous without, within densely appressed-pubescent except for the glabrous basal 1.5 mm, and with longer barbate pubescence at the orifice; lobes 6, slightly unequal, suborbicular-ovate or obovate-oblong, obtuse or rounded at apex, 4–5 mm long, 2.5–3 mm wide, glabrous both sides, the margins minutely papillate. Stamens 6; anthers linear, 3.5–5 mm long, 0.8–1.5 mm wide, the thecae transversely rugulose, terminating in an oblong, rounded connective 0.5–1 mm long, 0.5 mm wide; filaments ligulate-linear, thickened, 1.5 mm long, 0.7 mm wide, inserted 1.5–2.5 mm above the base of the corolla tube, broader than the base of the thecae. Style 4–6 mm long, papillate-verrucose; stigmas 4–6, ligulate, 0.5 mm long. Disk annular, the margin undulate, 1 mm long, 4 mm diam. Ovary 6-celled, ovules ca. 8 in each cell.

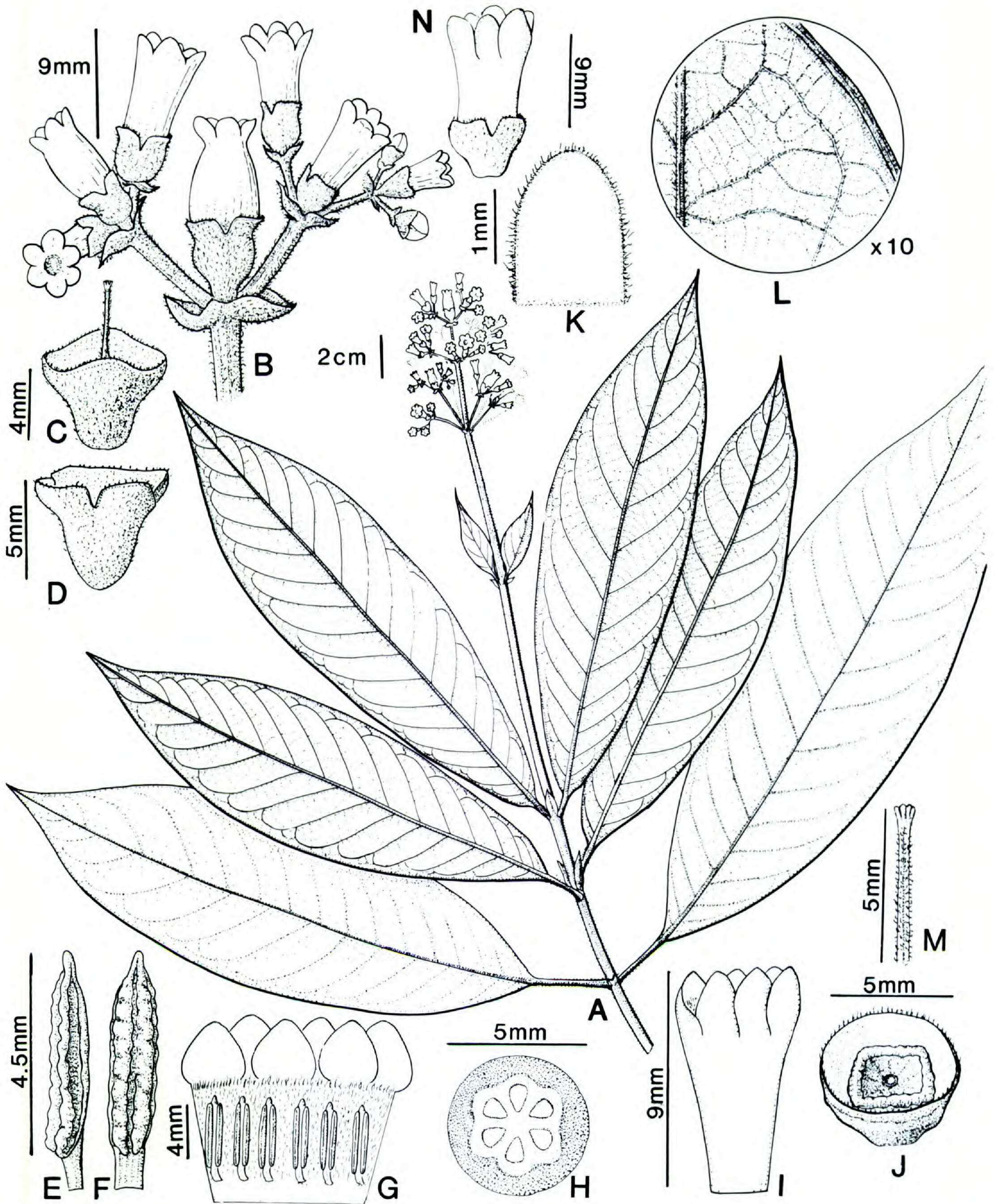


FIGURE 1. *Yutajea liesneri*.—A. Habit.—B. Portion of inflorescence.—C. Calyx and hypanthium before anthesis.—D. Calyx and hypanthium during anthesis.—E. Stamen (lateral view).—F. Stamen (ventral view).—G. Corolla, interior view.—H. Transverse section through ovary, semidiagrammatic.—I. Corolla, subinfundibuliform type.—J. Disk, from above, in depression at base of calyx tube.—K. Floral bract, exterior view.—L. Detail of lower leaf surface.—M. Style and stigmas.—N. Flower with broadly cylindrical corolla type with slightly unequal lobes.

Yutajea is a member of the tribe Isertieae as circumscribed by Kirkbride (1979) and may be placed next to its closest related genus, *Isertia*. From *Isertia* it differs especially in having the

stamens inserted near the base of the corolla tube and in having sub-basifixed anthers. The slightly unequal corolla lobes and the uniformly pubescent interior of the corolla tube are additional

characters at variance with *Isertia*. The corolla of *Yutajea* is short-cylindric or subinfundibuliform with imbricate lobes. Boom (1984) described the corolla tube in *Isertia* as "cylindrical, short or elongate" and the lobes as "valvate or imbricate in bud." In her abstract of characters delimiting the tribe Isertieae, Kirkbride (1979) characterized the aestivation of the corolla as "valvate" but later (p. 315) gave the aestivation as "valvate or valvate-imbricate." As Boom indicated, *Isertia* may have either valvate or imbricate aestivation. In *Isertia* the stamens are inserted near the mouth of the corolla tube, the anthers are dorsifixed, and the orifice of the corolla is usually villous or barbate, except in *I. scorpioides* Boom, while the remainder of the interior of the corolla tube is glabrous in all the species with the exception of *I. longifolia* (Hoffsg. ex Roemer & Schultes) Schumann.

Yutajea adds another endemic genus of the

Rubiaceae to the list of twelve previously described from the Guayana Highland (Steyermark, 1986).

The collections cited in this paper were made under Grant No. 3264-86 of The National Geographic Society.

LITERATURE CITED

- BOOM, B. 1984. A revision of *Isertia* (Isertieae: Rubiaceae). *Brittonia* 36: 425-454.
- KIRKBRIDE, M. CRISTINA GARCÍA. 1979. Review of the neotropical Isertieae (Rubiaceae). *Brittonia* 31: 313-332.
- STEYERMARK, J. 1986. *Holstianthus*, a new genus of Rubiaceae from the Guayana Highland. *Ann. Missouri Bot. Gard.* 73: 495-497.
- Julian A. Steyermark, *Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166, U.S.A.*